

## **Annual Drinking Water Quality Report Queenstown, Maryland Water System**

July 1, 2009

PWSID#0170003

We're pleased to present this year's Annual Drinking Water Quality Report. This report is designed to inform Queenstown residents about the quality of water and services we deliver every day. Our goal is to provide a safe and dependable supply of drinking water.

The source of our drinking water is two wells drilled into the Aquia aquifer, which lies about 300 feet beneath Queenstown. The Aquia is an underground layer of porous sand saturated with water and confined on the top and bottom by impervious layers of clay through which we pump water directly into our distribution system. Water in this aquifer is continuously replenished by surface water percolating through porous soils in southern Kent County and northern Queen Anne's County. As the water moves through the porous soils it is purified while at the same time it dissolves minerals such as iron, calcium, etc. from the soils.

The town's drinking water in 2008 meets Federal and State standards including the Maximum Contaminate Level (MCL) for Arsenic. The Maximum Contaminate Level for Arsenic was reduced by the EPA from .050 mg/l to .010 mg/l in 2005. The Town is studying its options of treating the water to remove arsenic and iron or to develop an alternative water supply source that is free of arsenic. We will keep you posted as we explore our options.

The following report is in compliance with Federal EPA regulations and is provided annually to the consumer. This report outlines the quality of our drinking water and what that quality means. The Town of Queenstown contracts with Miller Environmental, Inc. to operate and maintain our water system. They also monitor the quality of water we distribute to the consumer following guidelines established by Federal and State regulations.

If you have any questions about this report or the water utility, please contact the Town Office at (410) 827-7646. If you want to learn more, please attend any of our regularly scheduled meetings held on the second & fourth Tuesday of each month at the Town Office, 7013 Main Street, Queenstown, MD at 7:00 PM.

The table on the following page shows required monitoring results for January 1 – December 31, 2008 and non-required constituents from 2003 for your information. These samples represent a subset of over 50 elements and compounds that are monitored on a regularly scheduled basis.

### **Definitions**

In this report you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter (u/l)* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. If contaminant level is exceeded, that triggers

action on the part of provider (action level – see above).

*Maximum Contaminant Level Goal* - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

#### NON-DETECTED CONSTITUENTS

The Town of Queenstown is only required to provide information on those constituents it has detected in the finished water supply.

#### Detected Constituents not in Violation of the Maximum Contaminant Level

<i>Constituent</i>	<i>Level</i>	<i>Unit of Measurement</i>	<i>Maximum Contaminant</i>	<i>MCLG Levels Allowed</i>	<i>Year Tested</i>	<i>Likely Source</i>
1. Chloroform	2.8	ppb	100	0	2004	disinfection byproduct
2. Copper	.522	mg/L	1.3	1.3	2006	Corrosion of household plumbing and erosion of natural deposits
3. Fluoride	0.34	mg/L	4	4	2006	Erosion of natural deposits; water additive
4. Arsenic	0.008	mg/L	.010		2008	Erosion of natural deposits; runoff from orchards & production wastes
5. Iron	.26	mg/L	n/a	n/a	2003	Naturally present in the environment
6. Sodium	10.1	mg/L	n/a	n/a	2006	Monitor only, erosion of natural deposits
7. Beta Emitters	12	pci/L	n/a	n/a	2008	Decay of natural deposits
8. Barium	.009	mg/L	2	2	2006	Erosion of natural deposits
9. Radon 222	60	pci/L	n/a	n/a	2003	unregulated; monitor only
10. Lead	.002	mg/L	0.015	0	2006	Corrosion of household plumbing and erosion of natural deposits
11. Bromodi-	0.0014	mg/L	0.01	0	2004	disinfection byproduct

chloromethane

12. TTHM'S (Total Trihalomethanes) 0.0	ppb	100	0	2007	byproduct of drinking water disinfection
13. Nitrate	<0.1 mg/L	10	10	2008	run off from fertilizer use; leaching septic tanks, sewage; erosion of natural deposits
14. Dibromochloromethane	0.8 ug/L	100	0	2005	byproduct of drinking water disinfection
15. DI (2 Ethylene Phthalate) 8	ug/L	60ug/L	0	2005	Discharge from rubber and chemical factories

Bacteria are monitored monthly at specific locations throughout the distribution system. When there is a positive result, the public would be notified immediately and a "boil water" order would be issued.

All sources of drinking water are subject to dissolving substances that are naturally occurring and/or man made. These substances include microbes, inorganic or organic chemicals and radioactive substances. All drinking water, **including bottled water**, may reasonably be expected to contain at least small amounts of certain substances. The presence of these substances does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (1-800-426-4791). MCL's (maximum contaminate levels) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**Usted puede obtener informacion en espanol por llamar por telefono la casa del ayuntamiento de Town of Queenstown at (410) 827-7646**

Some people may be more vulnerable to certain substances in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). Please call the Town Office if you have questions. The Town of Queenstown is dedicated to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

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